In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-45. (Canceled)

46. (New) A method of killing undesirable benign cells in a patient, comprising contacting the cells with therapeutically effective amounts of a p53-encoding nucleic acid or protein and a DNA damaging agent.

47. (New) The method of claim 46, wherein the DNA damaging agent is ionizing radiation or a chemotherapeutic agent.

48. (New) The method of claim 47, wherein the DNA damaging agent is ionizing radiation.

49. (New) The method of claim 48, wherein the ionizing radiation is X-ray radiation, UV-irradiation, or γ-irradiation.

50. (New) The method of claim 46, wherein the DNA damaging agent is a chemotherapeutic agent.

51. (New) The method of claim 50, wherein the chemotherapeutic agent is an alkylating agent, a taxoid compound, an antimetabolite, a topoisomerase inhibitor, or an antitumor antibiotic.

52. (New) The method of claim 50, wherein the chemotherapeutic agent is adriamycin, 5-fluorouracil, etoposide, camptothecin, actinomycin-D, mitomycin-C, cisplatin, doxirubicin, docetaxel, or paclitaxel.

53. (New) The method of claim 46, wherein the cells are contacted with a p53-encoding nucleic acid.

54. (New) The method of claim 53, wherein the p53-encoding nucleic acid is in a recombinant vector that expresses a p53 protein.

55. (New) The method of claim 54, wherein the p53-expressing recombinant vector is a naked DNA plasmid, a plasmid within a liposome, or a viral vector.

56. (New) The method of claim 55, wherein the viral vector is a retroviral vector, an AAV vector, or a recombinant adenoviral vector.

57. (New) The method of claim 55, wherein the p53-expressing recombinant vector is a recombinant adenoviral vector.

58. (New) The method of claim 54, wherein the p53-encoding nucleic acid is in an expression cassette.

59. (New) The method of claim 58, wherein expression cassette comprises the p53-encoding nucleic acid is under the control of a constitutive promoter.

60. (New) The method of claim 59, wherein the constitutive promoter is a cytomegalovirus promoter, RSV promoter, or SV40 promoter.

61. (New) The method of claim 60, wherein the constitutive promoter is the cytomegalovirus IE promoter.

62. (New) The method of claim 58, wherein the expression cassette further comprises an SV40 early polyadenylation signal.

63. (New) The method of claim 57, wherein at least one gene essential for adenovirus replication is deleted from the recombinant adenoviral vector.

64. (New) The method of claim 63, wherein the E1A and E1B regions of the adenovirus vector are deleted and the p53 expression cassette is introduced in their place.

65. (New) The method of claim 46, wherein the cells are first contacted with the p53-encoding nucleic acid or protein and then contacted with the DNA damaging agent.

66. (New) The method of claim 46, wherein the cells are first contacted with the DNA damaging agent and then contacted with the p53-encoding nucleic acid or protein.

67. (New) The method of claim 46, wherein the cells are simultaneously contacted with a p53 protein or gene and the DNA damaging agent.

68. (New) The method of claim 67, wherein the p53-encoding nucleic acid or protein and the DNA damaging agent are comprised in a single composition.

69. (New) The method of claim 46, wherein the unwanted benign cells are dysplastic hyperplastic, or metaplastic.

70. (New) The method of claim 46, wherein the cells are human cells.

71. (New) The method of claim 70, wherein the cells are found in the lung, breast, liver, colon, kidney, brain, stomach, bladder, esophagus, thyroid or bone.

72. (New) The method of claim 57, wherein the amount of recombinant adenoviral vector is 1×10^{10} to 5×10^{12} viral particles.

73. (New) The method of claim 46, wherein the p53 encoding nucleic acid or protein is administered to the patient peritoneally, intravenously, intratracheally, locally, or by direct injection.